



SPECIFICATION OF THE LORAN-C SIGNALTABLE OF CONTENTS

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SPECIFICATION OF THE TRANSMITTED LORAN-C SIGNALCHAPTER 1 - INTRODUCTIONA. Purpose

This Loran-C specification is intended as a reference document consisting of definitions, specifications, and explanations for general distribution to designers, manufacturers, and users. This specification provides a technical description of the Loran-C transmitting station's signal.

B. Scope

The Loran-C Radionavigation System, managed by the U.S. Coast Guard, is the federally provided radionavigation system for civil marine use in the U.S. coastal waters. It is also designated by the Federal Aviation Administration (FAA) as a supplementary system in the National Airspace System (NAS). This system provides accurate radionavigation and timing services to users in the United States of America and Canada. Loran-C is also being used and developed by several other countries in Europe and Asia.

Estimates of Loran-C system accuracy must take into consideration the transmitted signal, signal propagation, signal reception, interference or errors from outside sources such as natural and man-made electromagnetic noise, skywave contamination, geometric dilution of precision, other Loran-C signals, communication information superimposed on the navigation signal, and coordinate conversion. This specification addresses only the transmitted signal (without Loran-C communications modulation) and its control. Chapter 3 provides information on calibration and data collection procedures that affect system accuracy.

The transmitted pulses from all U.S. and Canadian operated Loran-C chains satisfy the requirements of this specification. Due to equipment limitations or the requirement for dual-rate operation, two compliance code categories have been established. In general, Category 2 specifications apply only to older equipment while Category 1 specifications apply to the newer equipment. Transmitted test or experimental signals are not within the scope of this document. It is assumed that the reader of this specification has a knowledge of the fundamentals of the Loran-C Radionavigation System.